

2. (Amended) The tube of claim 1, further comprising a plurality of transition sections, said transition sections being positioned between said bending sections and said restrained elongation sections.

4. (Amended) The tube of claim 2, wherein the restrained elongation sections include two convolutes radially spaced apart that each have opposite ends attached to one of said transition sections.

Please add the following claims 12-15:

12. (New) An automobile liquid line that includes the tube of claim 1.

13. (New) A water line that includes the tube of claim 1.

14. (New) The tube of claim 1, wherein said plurality of convolutes includes two convolutes juxtaposed next to each other that each comprise two opposing bending sections and two opposing restrained elongation sections positioned between the bending sections, said two opposing bending sections and said two opposing restrained elongation sections of said two juxtaposed convolutes being aligned with corresponding bending sections and restrained sections of the juxtaposed convolute.

15. (New) The tube of claim 14 wherein the two opposing bending sections and the two opposing restrained sections of the two juxtaposed convolutes all extend a height above the top surface of the tube, the height of the bending sections of each of the two juxtaposed convolutes above the top surface of the tube being greater than the height of the restrained elongation sections of the two juxtaposed convolutes above the top surface of the tube.

REMARKS

Applicant has reviewed the Examiner's Office Action dated November 30, 2001. In the Office Action, the Examiner rejected claims 2, 4 and 11 under 35 U.S.C § 112 and rejected claims 1-11 under 35 U.S.C. § 102. Applicant has cancelled claim 11, amended claims 1, 2 and 4, and added new claims 12-15. Reconsideration of present application, including pending claims 1-10 and 12-15, in view of the foregoing amendments and the following remarks is requested.

The Examiner rejected claims 2, 4 and 11 under 35 U.S.C § 112, second paragraph. With regard to claims 2 and 4, the Examiner noted that the

positive recitation of the terms "bending section" and "restraining elongation section" were confusing as these terms were also positively recited in independent claim 1. In response to the rejection under Section 112, Applicant has amended claims 2 and 4 to clarify the noted claim language. Support for the claim amendments can be found throughout the specification and, specifically, at page 10, line 24 to page 11, line 8, page 13, lines 1-14, and Figures 5 and 8.

The Examiner also rejected claim 11 under Section 112 on the basis that the claim did not recite additional structure differentiating claim 11 from claim 1. In response to this rejection, Applicant has cancelled claim 11 and has rewritten the cancelled claim as new claims 12 and 13.

The Examiner rejected claims 1-3 and 6-11 under 35 U.S.C § 102(b) as being anticipated by US 3 715 454 to Kleykamp ("Kleykamp"). Applicant has amended independent claim 1 in order to more clearly distinguish the invention from the prior art cited by the Examiner. Support for the claim amendment can be found throughout the specification and, specifically, at page 9, line 25 through page 11, line 21, and Figure 5. Kleykamp is directed to a vacuum clean hose 21 with convolutions 26. The convolutions in the hose have a recess 27 that is even with the top surface of the hose through which a flexible member 22, such as an electric conductor, can be run. The hose does not include two restrained convolute sections that extend above the top surface of the tube as recited in amended claim 1 of the present application. The flexible member 22 is not part of the tube and it does not perform the function performed by the restrained convolute sections of claim 1. Accordingly, the invention of claim 1, and dependant claims 2, 3 and 6-10, is not anticipated by or obvious from Kleykamp.

The Examiner rejected claims 1-4 and 6-11 under 35 U.S.C § 102(e) as being anticipated by US 6 056 018 to Renaud ("Renaud"). Renaud is directed to a tube having a bellows with convolutions 19. The convolutions are broken on opposite sides of the tube where the convolutes are not present and there are instead opposing sections that are even with the top surface of the tube. The tube in Renaud does not include two restrained convolute sections that extend above the top surface of the tube as recited in amended claim 1 of the present application. Accordingly, The invention of claim 1, and dependant claims 2-4 and 6-10, is not anticipated by or obvious from Renaud.

The Examiner also rejected claims 1-11 under 35 U.S.C § 102(b) as being anticipated by US 3 855 799 to Martin et al. ("Martin"). Martin is directed to a rigid corrugated tube. The tube 50 is made with a stiffening rib structure 28 between wall peaks 22 that "rigidify the corrugated tube 50 and thereby prevent it from flexing."

(column 5, line 24) Accordingly, Martin does not disclose a flexible tube with a convolute having opposing bending sections as recited in claim 1. Therefore, the invention of claim 1, and dependant claims 2-10, is not anticipated by or obvious from Martin.

Finally, Applicant has added new dependant claims 14 and 15 to the application in order to more clearly claim certain aspects of the invention. Support for these new claims can be found throughout the specification and, specifically, at page 9, line 25 through page 11, line 21, and Figure 5.

In light of the above amendments and remarks, Applicant believes that this application contains patentable subject matter in appropriate form. Reconsideration and withdrawal of the rejections and allowance of all pending claims are earnestly solicited. If there are any additional fees due in connection with the filing of this Amendment, the Commissioner is authorized to charge such fees to our Deposit Account No. 04-1928.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In showing the changes, deleted material is shown as bracketed, and inserted material is shown underlined.

IN THE CLAIMS

1. (Amended) A flexible tube having a bellows comprising a plurality of convolutes formed in the wall of said tube, said convolutes [and] extending above the top surface of the tube and circumscribing the tube, said convolutes being spaced from one another in the axial direction of the tube,

wherein at least one of said convolutes comprises two opposing bending sections and two restrained elongation sections positioned between the bending sections, and

wherein the two opposing bending sections and the two restrained sections all extend a height above the top surface of the tube, the height of the bending sections above the top surface of the tube [is greater than] being greater than the height of the restrained elongation sections above the top surface of the tube, whereby the bending sections of the flexible tube are more flexible than the restrained sections of the flexible tube.

2. (Amended) The tube of claim 1, further comprising a plurality of transition sections, said transition sections being positioned between said bending sections and said restrained elongation sections [transition section position between a bending section and a restrained elongation section].

4. (Amended) The tube of claim [1] 2, wherein the restrained elongation [section includes second] sections include two convolutes radially spaced apart [that connect a restrained elongation section to a bending section] that each have opposite ends attached to one of said transition sections.